```
Welcome to STN International! Enter x:x
LOGINID:ssptakjc1617
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                    Welcome to STN International
NEWS
     1
                 Web Page URLs for STN Seminar Schedule - N. America
                 "Ask CAS" for self-help around the clock
NEWS
NEWS
     3
         FEB 27
                New STN AnaVist pricing effective March 1, 2006
         APR 04
                STN AnaVist $500 visualization usage credit offered
NEWS 4
         MAY 10
                CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS 5
NEWS
         MAY 11
                 KOREAPAT updates resume
NEWS
      7
         MAY 19
                Derwent World Patents Index to be reloaded and enhanced
NEWS
      8
         MAY 30
                 IPC 8 Rolled-up Core codes added to CA/CAplus and
                 USPATFULL/USPAT2
NEWS 9
         MAY 30
                 The F-Term thesaurus is now available in CA/CAplus
NEWS 10
         JUN 02
                 The first reclassification of IPC codes now complete in
                 INPADOC
NEWS 11
         JUN 26
                 TULSA/TULSA2 reloaded and enhanced with new search and
                 and display fields
NEWS 12
         JUN 28
                 Price changes in full-text patent databases EPFULL and PCTFULL
NEWS EXPRESS
              JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.
              STN Operating Hours Plus Help Desk Availability
NEWS HOURS
              Welcome Banner and News Items
NEWS LOGIN
NEWS IPC8
              For general information regarding STN implementation of IPC 8
NEWS X25
              X.25 communication option no longer available
Enter NEWS followed by the item number or name to see news on that
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  ***************
     Due to scheduled maintenance of STN on Sunday, July 9, 2006,
     some databases may not be available until 04:00 (4:00 AM)
     Eastern Daylight Time.
              ***************
 FILE 'HOME' ENTERED AT 10:49:37 ON 05 JUL 2006
=> fil reg
                                              SINCE FILE
                                                             TOTAL
COST IN U.S. DOLLARS
                                                           SESSION
                                                   ENTRY
                                                              0.21
                                                    0.21
FULL ESTIMATED COST
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FILE 'REGISTRY' ENTERED AT 10:49:42 ON 05 JUL 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 4 JUL 2006 HIGHEST RN 890521-76-3 DICTIONARY FILE UPDATES: 4 JUL 2006 HIGHEST RN 890521-76-3

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

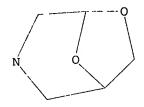
Uploading C:\Program Files\Stnexp\Queries\10518689 very broad.str

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 10:49:57 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 139 TO ITERATE

100.0% PROCESSED 139 ITERATIONS 48 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 2073 TO 3487
PROJECTED ANSWERS: 545 TO 1375

L2 48 SEA SSS SAM L1

=> d 12 1-10 cn rn str

L2 ANSWER 1 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN

CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane-3,7-dicarboxylic acid, 3-(1,1-dimethylethyl) 7-methyl ester, (1R,5R,7R)- (9CI) (CA INDEX NAME) RN 875533-87-2 REGISTRY

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 2 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN

CN 1,4-Epoxy-1H,3H-pyrrolo[2,1-c][1,4]oxazepine-3-carboxylic acid, hexahydro-5-oxo-8-(phenylmethoxy)-, methyl ester, (1R,3S,4S,8R,9aS)- (9CI) (CA INDEX NAME)

RN 869649-27-4 REGISTRY

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 3 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN

CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane, 5-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

RN 785730-93-0 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L2 ANSWER 4 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN
- CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane, 5-(2-chlorophenyl)- (9CI) (CA INDEX NAME)
- RN 784093-87-4 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L2 ANSWER 5 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN
- CN 2H-3, 9a-Epoxy-1, 5-benzoxazepine, 5a-(2-chlorophenyl) octahydro-5-methyl-, $(3\alpha, 5a\alpha, 9a\alpha)-$ (9CI) (CA INDEX NAME)
- RN 748734-08-9 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L2 ANSWER 6 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN
- CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane-7-carboxylic acid, 5-(4-hydroxyphenyl)-2-oxo-3-(phenylmethyl)-, methyl ester, (1R,5S,7R)-(9CI) (CA INDEX NAME)
- RN 677353-48-9 REGISTRY

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 7 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN

CN Morpholine, 4-[[(1R,5S,7R)-2-oxo-3-(phenylmethyl)-6,8-dioxa-3-azabicyclo[3.2.1]oct-7-yl]carbonyl]- (9CI) (CA INDEX NAME)

RN 664375-56-8 REGISTRY

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 8 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane-7-carboxamide, N,N'-1,5-

pentanediylbis[5-(4-nitrophenyl)-3-phenyl- (9CI) (CA INDEX NAME)

RN 639474-79-6 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 9 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN

CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane-7-carboxamide, N,N'-1,5-pentanediylbis[5-(4-aminophenyl)-2-oxo-3-phenyl- (9CI) (CA INDEX NAME)

RN 639474-73-0 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 10 OF 48 REGISTRY COPYRIGHT 2006 ACS on STN

CN 6,8-Dioxa-3-azabicyclo[3.2.1]octane-7-carboxamide, N,N'-1,2-ethanediylbis[2-oxo-3,5-diphenyl- (9CI) (CA INDEX NAME)

RN 639474-60-5 REGISTRY

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

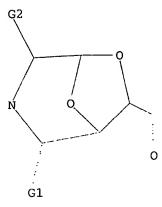
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Uploading C:\Program Files\Stnexp\Queries\10518689 broad.str

L3 STRUCTURE UPLOADED

=> d 13

L3 HAS NO ANSWERS

L3 STR



G1 H,O,S G2 H,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 13

SAMPLE SEARCH INITIATED 11:00:31 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 55 TO ITERATE

100.0% PROCESSED 55 ITERATIONS 35 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 656 TO 1544
PROJECTED ANSWERS: 346 TO 1054

L4 35 SEA SSS SAM L3

=> s 13 full

FULL SEARCH INITIATED 11:00:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1131 TO ITERATE

100.0% PROCESSED 1131 ITERATIONS 776 ANSWERS

SEARCH TIME: 00.00.01

L5 776 SEA SSS FUL L3

=> fil caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
193.86
194.07

FILE 'CAPLUS' ENTERED AT 11:01:22 ON 05 JUL 2006
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http://www.cas.org/infopolicy.html

=> s 15

L6 27 L5

=> d 16 ibib abs 1-27

L6 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:117206 CAPLUS

DOCUMENT NUMBER: 144:205807

TITLE: Pharmaceutical compositions for treating disorders of

the skin

INVENTOR(S): Bruinsma, Gosse B. PATENT ASSIGNEE(S): Axonyx, Inc., USA

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT	NO.			KIN)	DATE		i	APPL:	ICAT:	ION	. 00		Dž	ATE	
	2006				A2		2006		,	WO 2	005-1	JS26	909		20	0050	729
WO	2006 W:		83 AG,		A3 AM,		2006) AU,		BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	ΚP,	KR,	KZ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
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		SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	zw													
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ΒJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	ŪG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM										
RITY	APP	LN.	INFO	. :						US 2	004-	5924	11P		P 2	0040	730

PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
MARPAT 144:205807

AB The invention relates to a method of treating a decubitus ulcer in a subject and a method of identifying a compound useful in the treatment of decubitus. In addition, active dressings, ointments and/or lotions having a means for improving healing of the decubitus ulcer are provided.

L6 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1174211 CAPLUS

DOCUMENT NUMBER: 144:70099

TITLE: Synthesis of glycidol- and sugar-derived bicyclic

 β - and γ/δ -amino acids for

peptidomimetic design

AUTHOR(S): Danieli, Elisa; Trabocchi, Andrea; Menchi, Gloria;

Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica "Ugo Schiff",

Universita degli Studi di Firenze, Polo Scientifico di

Sesto Fiorentino, Sesto Fiorentino, 50019, Italy

SOURCE: European Journal of Organic Chemistry (2005), (20),

4372-4381

CODEN: EJOCFK; ISSN: 1434-193X Wiley-VCH Verlag GmbH & Co. KGaA

PUBLISHER: Wiley-VC
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:70099

GI

AB Constrained bicyclic β - and γ/δ -amino acids I (R = H or CH2OBn; Fmoc = fluorenylmethoxycarbonyl, Bn = benzyl) and II were developed using glycidol and sugar derivs. The synthetic strategies involved epoxide ring opening of a glycidol derivative, and subsequent coupling with sugar-derived amines, leading to di- or trisubstituted bicyclic scaffolds after cyclization with trifluoroacetic acid. Achievement of β - or γ/δ -amino acids was accomplished by changing the protecting group strategy of the starting materials. Compatibility of the scaffold with solid-phase peptide synthesis was assessed by preparing model peptidomimetics using acid- and base-labile resins, thus giving a new tool for peptidomimetic design.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1084709 CAPLUS

DOCUMENT NUMBER: 144:7072

TITLE: Synthesis of a constrained tricyclic scaffold based on

trans-4-hydroxy-L-proline

AUTHOR(S): Trabocchi, Andrea; Rolla, Massimo; Menchi, Gloria;

Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica Ugo Schiff, Polo

Scientifico di Sesto Fiorentino, Universita degli Studi di Firenze, Sesto Fiorentino (FI), I-50019,

Ttalv

SOURCE: Tetrahedron Letters (2005), 46(45), 7813-7816

CODEN: TELEAY; ISSN: 0040-4039

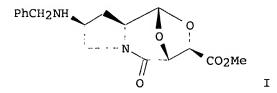
PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:7072

GI

AB



order to achieve new leads possessing structural and functional characteristics of bioactive peptides together with enhanced metabolic resistance towards proteases. Herein is reported the synthesis of a tricyclic peptidomimetic scaffold I derived from the combination of trans-4-hydroxy-L-proline and tartaric acid derivs. by means of amidation and acid trans-acetalization reactions. Further manipulations of the hydroxylic function on the pyrrolidine ring gave access to a new set of amino acid scaffolds possessing high rigidity and a fixed arrangement of the functional groups.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:260058 CAPLUS

DOCUMENT NUMBER: 142:336382

TITLE: Preparation of benzimidazolylideneacetonitriles for

treating metabolic disorders mediated by insulin

resistance or hyperglycemia

INVENTOR(S): Schwarz, Mattias; Gaillard, Pascale; Page, Patrick;

Gotteland, Jean-Pierre; Thomas, Russell J.

PATENT ASSIGNEE(S): Applied Research Systems ARS Holding N.V., Neth.

Antilles

SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.					
WO 2005026155		WO 2004-EP52137					
W: AE, AG, AL	AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,				
		DM, DZ, EC, EE, EG,					
		IN, IS, JP, KE, KG,					
· · · · · · · · · · · · · · · · · · ·		MD, MG, MK, MN, MW,					
		RO, RU, SC, SD, SE,					
		UG, US, UZ, VC, VN,					
		NA, SD, SL, SZ, TZ,					
		TM, AT, BE, BG, CH,					
		IE, IT, LU, MC, NL,					
	BF, BJ, CF, CG,	CI, CM, GA, GN, GQ,	GW, ML, MR, NE,				
SN, TD, TG							
AU 2004272306	A1 20050324	AU 2004-272306	20040910				
CA 2534317	AA 20050324	CA 2004-2534317	20040910				
EP 1667995	A1 20060614	EP 2004-766767	20040910				
R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,				
IE, SI, LT	LV, FI, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU, PL, SK, HR				
		NO 2006-1614					
PRIORITY APPLN. INFO.:		EP 2003-102741					
THE OFFICE AND THE OFFI		WO 2004-EP52137					
OTHER SOURCE(S):	MARPAT 142:3363		W 20040510				

OTHER SOURCE(S): MARPAT 142:33638

GΙ

$$\begin{array}{c|c} & R^2 \\ & N \\ & N \\ & N \\ & M \\ & G-L \end{array}$$

The title compds. I [G = pyrimidinyl; L = amino, 3-8 membered heterocycloalkyl, containing at least one heteroatom selected from N, O, S, or L = acylamino; R1 = H, sulfonyl, amino, carboxy, aminocarbonyl, alkyl, alkenyl, alkynyl, alkoxy, aryl, halo, cyano or hydroxy; R2 = H, alkyl, alkenyl, alkynyl, alkoxy], useful in the treatment of metabolic disorders mediated by insulin resistance or hyperglycemia, comprising diabetes type II, inadequate glucose tolerance, insulin resistance, obesity, polycystic ovary syndrome (PCOS), were prepared and formulated. E.g., a multi-step synthesis of II, was given. The compds. I were tested in GSK3 β (h) in vitro assay (data given for representative compds. I).

II

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:304184 CAPLUS

DOCUMENT NUMBER: 141:54307

TITLE: Enantioselective addition of diethylzinc to aldehydes

using 1,4-amino alcohols as chiral ligands

AUTHOR(S): Scarpi, Dina; Lo Galbo, Fabrizio; Occhiato, Ernesto

G.; Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica 'U. Schiff',

Universita di Firenze, Sesto Fiorentino, 50019, Italy

SOURCE: Tetrahedron: Asymmetry (2004), 15(8), 1319-1324

CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:54307

GI

AB Conformationally constrained, optically active 1,4-amino alcs. I (R = Et, i-Pr, c-Hexyl, Bn) have been used as chiral ligands in the addition of diethylzinc to aromatic aldehydes. The enantioselectivity was strongly influenced by the N-alkyl group: the best results were achieved with

N-ethyl- and N-benzyl-amino alcs. One example of addition to an aliphatic aldehyde is also reported.

REFERENCE COUNT: 17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:2706 CAPLUS

DOCUMENT NUMBER:

140:53449

TITLE:

Pharmaceutical compositions for the treatment of

diseases related to neurotrophins

INVENTOR(S):

Guarna, Antonio; Cozzolino, Federico; Torcia, Maria;

Garaci, Enrico

PATENT ASSIGNEE(S):

Italy

SOURCE:

PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PAT	CENT I	NO.			KINI	D			APPLICATION NO.						DATE				
	WO	0 2004000324					-	20031231		WO 2003-EP6471						20030618				
												BG,					CH,	CN,		
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
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			KG,	ΚZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	, СН,	CY,	CZ,	DE,	DK,	EE,	ES,		
			FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC ,	, NL,	PT,	RO,	SE,	SI,	SK,	TR,		
			BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ.	, GW,	ML,	MR,	NE,	SN,	TD,	TG		
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	EP	1551	412			A1		2005	0713		EP 2	2003-	7606	52		2	0030	618		
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			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	, TR,	BG,	CZ,	EE,	HU,	SK			
	CN	1662	242			Α		2005	0831		CN 2	2003-	8141	55		2	0030	618		
	JP	2005	5308	34		T2						2004-					0030			
	US	2006	0690	92		A1		2006	0330			2004-								
E	RIORIT	Y APP	LN.	INFO	.:						IT 2	2002-	FI10	7		A 2	0020	619		
											WO 2	2003-	EP64	71	1	W 2	0030	618		
										_										

OTHER SOURCE(S): MARPAT 140:53449

AB The invention refers to pharmaceutical prepns. including as active compds. 3-aza-bicyclo[3.2.1]octane derivs. and/or their dimers acting as agonists of human neurotrophins. Therefore, such compds. are useful for treatment of diseases in which the neurotrophin functions are involved in defect, particularly of Nerve Growth Factor (NGF), such as neurodegenerative diseases of central nervous system (CNS), acquired immunodeficiency due to a reduced NGF bioavailability, or morbous conditions in which the stimulus of neoangiogenesis process is convenient.

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

3

ACCESSION NUMBER:

2003:957358 CAPLUS

DOCUMENT NUMBER:

140:321342

TITLE:

A solid-phase approach towards the development of 3-aza-6,8-dioxabicyclo[3.2.1]octane scaffolds

AUTHOR(S):

Trabocchi, Andrea; Mancini, Francesco; Menchi, Gloria;

Guarna, Antonio

CORPORATE SOURCE:

Polo Scientifico di Sesto Fiorentino, Dipartimento di Chimica Organica 'Ugo Schiff', Universitadegli Studi di Firenze, Florence, Sesto Fiorentino, Italy Molecular Diversity (2003), 6(3-4), 245-250

CODEN: MODIF4; ISSN: 1381-1991

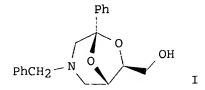
PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:321342

GI

SOURCE:



AB The development of new strategies for solid-phase synthesis of $3\text{-}aza\text{-}6,8\text{-}dioxabicyclo}[3.2.1]$ octane scaffolds, named BTKa, e.g. I, is described. The preparation was made possible by the combination of three components: amines, $\alpha\text{-}halo\text{-}acetophenones$, and sugar or tartaric acid derivs. By anchoring each of the three components it was possible to synthesize BTKa compds. either as amino alcs. or amido esters. The compatibility of the protocols with different classes of amines and substituted $\alpha\text{-}halo\text{-}acetophenones$ was demonstrated.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:689696 CAPLUS

DOCUMENT NUMBER: 140:217610

TITLE: Neat reaction of carboxylic acid methyl esters and

amines for efficient parallel synthesis of scaffold

amide libraries

AUTHOR(S): Machetti, Fabrizio; Bucelli, Ilaria; Indiani,

Giovanni; Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica 'Ugo Schiff',

Universita Degli Studi di Firenze and ICCOM-CNR, Sesto

Fiorentino-Firenze, 50019, Italy

SOURCE: Comptes Rendus Chimie (2003), 6(5-6), 631-633

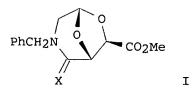
CODEN: CRCOCR; ISSN: 1631-0748

PUBLISHER: Editions Scientifiques et Medicales Elsevier

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:217610

GI



AB Efficient synthesis of unsubstituted and substituted amides is described. The reaction is characterized by its mildness and ease of work-up. A library of amides, was prepared by heating esters I [X = O, S] with various amines.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS

L6 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:496586 CAPLUS

DOCUMENT NUMBER: 139:261263

TITLE: Enantiospecific synthesis of 3-aza-6,8-

dioxabicyclo[3.2.1]octanecarboxylic acids from

erythrose

AUTHOR(S): Trabocchi, Andrea; Menchi, Gloria; Rolla, Massimo;

Machetti, Fabrizio; Bucelli, Ilaria; Guarna, Antonio Istituto di Chimica dei Composti Organometallici-

C.N.R., Dipartimento di Chimica Organica "Ugo Schiff",

Universita di Firenze, Sesto Fiorentino, Florence,

I-50019, Italy

SOURCE: Tetrahedron (2003), 59(28), 5251-5258

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

CORPORATE SOURCE:

OTHER SOURCE(S): CASREACT 139:261263

AB New methodol. for the synthesis of enantiopure 3-aza-6,8-dioxabicyclo[3.2.1]octanecarboxylic acids belonging to 7-endo-BTAa sub-class of γ/δ amino acids is described. The novelty is the use of 2,3-O-isopropylidene-erythrose instead of meso-tartaric acid derivative, thus allowing us to perform an enantiospecific synthesis. Reductive amination of erythro lactol with aminoacetaldehyde di-Et acetal or benzylamine and subsequent acid cyclization gave directly the amino alc. scaffold. Protection of nitrogen as urethane and final alc. oxidation afforded the Fmoc-, Boc-, and Cbz-amino acids. The new synthetic route was applied on a multigram scale, thus resulting in a marked improvement of the synthesis of enantiopure 7-endo-BTG and 7-endo-BTK amino acids.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:199584 CAPLUS

DOCUMENT NUMBER: 138:362606

TITLE: Molecular Shape Diversity of Combinatorial Libraries:

A Prerequisite for Broad Bioactivity

AUTHOR(S): Sauer, Wolfgang H. B.; Schwarz, Matthias K.

CORPORATE SOURCE: Department of Chemistry, Serono Pharmaceutical Research Institute, Plan-les-Ouates, Geneva, 1228,

Research Institute, Plan-les-Ouates, Geneva, 1228,

Switz.

SOURCE: Journal of Chemical Information and Computer Sciences

(2003), 43(3), 987-1003

CODEN: JCISD8; ISSN: 0095-2338

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB A computational method to rapidly assess and visualize the diversity in mol. shape associated with a given compound set has been developed. Normalized ratios of principal moments of inertia are plotted into two-dimensional triangular graphs and then used to compare the shape space covered by different compound sets, such as combinatorial libraries of varying size and composition We have further developed a computational method to analyze interset similarity in terms of shape space coverage, which allows the shape redundancy between the different subsets of a given compound collection to be analyzed in a quant. way. The shape space coverage has been found to originate mainly from the nature and the 3D-geometry (but not the size) of the central scaffold, while the number and nature of the peripheral substituents and conformational aspects were shown to be of minor importance. Substantial shape space coverage has been correlated with broad biol. activity by applying the same shape anal. to collections of known bioactive compds., such as MDDR and the GOLD-set. The aggregate

of our results corroborates the intuitive notion that mol. shape is intimately linked to biol. activity and that a high degree of shape (hence scaffold) diversity in screening collections will increase the odds of addressing a broad range of biol. targets.

REFERENCE COUNT: 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:880603 CAPLUS

DOCUMENT NUMBER: 138:338122

TITLE: Synthesis of a new enantiopure bicyclic

 $\gamma/\delta\text{-amino}$ acid (BTKa) derived from tartaric acid and $\alpha\text{-amino}$ acetophenone

AUTHOR(S): Guarna, Antonio; Bucelli, Ilaria; Machetti, Fabrizio;

Menchi, Gloria; Occhiato, Ernesto G.; Scarpi, Dina;

Trabocchi, Andrea

CORPORATE SOURCE: Dipartimento di Chimica Organica "U. Schiff",

Universita di Firenze and Istituto di Chimica dei Composti Organometallici-CNR, Florence, 50019, Italy

SOURCE: Tetrahedron (2002), 58(49), 9865-9870

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:338122

GI

The synthesis of a novel enantiopure γ/δ -amino acid having the AΒ 3-aza-6,8-dioxabicyclo[3.2.1]octane structure was realized by the combination of tartaric acid derivs. and $\alpha\text{-amino}$ acetophenone followed by a trans-acetalization process. The tartaric acid derivs. used in this study included (4R,5R)-2,2-dimethyl-1,3-dioxolane-4,5-dicarboxylic acid monomethyl ester and (3R,4R)-3,4-bis(acetyloxy)dihydro-2,5-furandione (0,0'-diacetyl-L-tartaric anhydride). For example, condensation of 2-(benzylamino)acetophenone with (4R,5R)-2,2-dimethyl-1,3-dioxolane-4,5dicarboxylic acid monomethyl ester [i.e., an (R,R)-tartaric acid derivative] gave I in 75% yield. Transacetalization of I in the presence of gave H2SO4/SiO2 gave (-)-(1R,5S,7R)-2-oxo-5-phenyl-3-(phenylmethyl)-6,8-dioxa-3azabicyclo[3.2.1]octane-7-carboxylic acid Me ester (II) in 85% yield. Th bicyclic amino acid, which has a rigid skeleton and carries substituents at the 3, 5 and 7 positions of the scaffold, could find different applications in organic and peptidomimetic synthesis. Two synthetic strategies were studied, one of them allowing the multigram scale preparation of the amino acid.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:706544 CAPLUS

DOCUMENT NUMBER: 137:370350

TITLE: Synthesis and Conformational Analysis of Small

Peptides Containing 6-Endo-BT(t)L Scaffolds as Reverse

Turn Mimetics

AUTHOR(S): Trabocchi, Andrea; Occhiato, Ernesto G.; Potenza,

Donatella; Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica "Ugo Schiff",

Universita di Firenze, Polo Scientifico di Sesto
Fiorentino, Sesto Fiorentino, Firenze, I-50019, Italy

Fiorentino, Sesto Fiorentino, Firenze, I-50019, Italy Journal of Organic Chemistry (2002), 67(21), 7483-7492

CODEN: JOCEAH; ISSN: 0022-3263

American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:370350

GI

SOURCE:

PUBLISHER:

AB Two new dipeptide isosteres derived from L-leucine and meso-tartaric acid derivs., named 6-endo-BTL and 6-endo-BtL, were inserted in a small peptide by means of solid-phase peptide synthesis, and the conformational features of the resulting peptides I and II were studied by NMR, IR, and mol. modeling techniques. The presence of a reverse turn conformation was observed in all the structures, suggesting the key role of the scaffolds as reverse turn promoters. I and II did not adopt a preferred conformation as indicated by the presence of equilibrium between open turn and intramol. hydrogen-bonded structures. I showed a 3:1 mixture of conformers. major conformer adopted mainly an open turn structure in equilibrium with hydrogen-bonded structures. The minor conformer displayed a better organized structure with a 14-membered ring hydrogen-bond typical of a β -hairpin-like structure, in equilibrium with a γ -turn, too. II showed a unique conformer, and did not adopt as good a conformation as I, due to the bulky equatorial substituent at C-2. Thus, marked structural differences between peptides containing 6-endo-BTL and 6-endo-BtL scaffolds as reverse turn inducers exist.

TT

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:201199 CAPLUS

DOCUMENT NUMBER: 136:386364

TITLE: Bicyclic compounds derived from tartaric acid and

 α -amino acids (BTAas): synthesis of new

molecular scaffolds derived from the combination of

(R,R)-tartaric acid and L-serine

AUTHOR(S): Cini, Nicoletta; Machetti, Fabrizio; Menchi, Gloria;

Occhiato, Ernesto G.; Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica "U. Schiff" and

Centro di Studio sulla Chimica e la Struttura dei Composti Eterociclici e loro Applicazioni, C.N.R., Polo Scientifico di Sesto Fiorentino, Universita di Firenze, Sesto Fiorentino, 50019, Italy

European Journal of Organic Chemistry (2002), (5), SOURCE :

873-880

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal English LANGUAGE:

OTHER SOURCE(S): CASREACT 136:386364

The synthesis of the new N-Fmoc-protected dipeptide isostere Me (1S, 2S, 5S, 6R) - 2exo-hydroxymethyl-7, 8-dioxa-3-azabicyclo[3.2.1]octane-6exocarboxylate (BTS) has been achieved, starting from (R,R)-tartaric acid and O-benzyl-L-serine, in 11% overall yield after 9 steps. Interestingly, starting from the same α -amino acid, it was also possible to prepare the 2endo-substituted compound, formally derived from the combination of tartaric acid with D-serine. Each compound has a CH2OH functional group at C-2, which is very useful for greater diversification of the 7,8-dioxa-3-azabicyclo[3.2.1]octane-6-carboxylate (BTAa) dipeptide isosteres. The oxidation of the C-2 carbinol group in BTS, moreover, gave rise to a novel, conformationally constrained, α -amino acid that may

find application in peptidomimetic synthesis.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 14 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

2001:654699 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 135:211044

Preparation of 3-aza-6,8-dioxabicyclo[3.2.1]octanecarb TITLE:

oxylates and analogs

INVENTOR(S): Guarna, Antonio; Menchi, Gloria; Occhiato, Ernesto

Giovanni; Machetti, Fabrizio; Scarpi, Dina

Universita Degli Studi di Firenze, Italy PATENT ASSIGNEE(S):

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

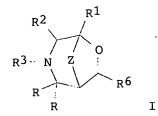
DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAS	TENT	KIND DATE				i	APPL	ICAT:	ION 1	DATE							
EP	1130	022			A1 20010905]	EP 2	000-1	1041	20000229				
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO										
CA	2401	693			AA 20010907				(CA 2	001-	2401	20010227				
WO	WO 2001064686					A1 20010907				NO 2	001-	EP21	20010227				
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VN,
		YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM				
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	BF,	ВĴ,	CF,	CG,
		CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG					
US 2003176414					A1 20030918				1	US 2	002-	2205	20021101				
PRIORITY APPLN. INFO.:									EP 2000-104135					A 20000229			
									1	WO 2	001-	EP21	85	I	N 20	00102	227
OTHER SO	CASREACT 135:211044; MARPAT 135:211044																

GI



Title compds. [e.g., I; RR = O or each R = H; R1 = (un) substituted Ph; R2AB = H, Me, CH2Ph; R3 = (un)substituted phenyl(methyl), CH(CO2H)CH2Ph, allyl, etc.; R6 = H, Me, CO2H, CH2OH; Z = O or NH] were prepared Thus, PhCOCH2NHCH2Ph was N-acylated by 1,4-dioxane-2,3-dicarboxylic acid monomethyl ester and the product cyclized to give I (RR = O, R1 = R3 = CH2Ph, R2 = H, R6 = CO2Me, Z = O). The method is suitable for solid phase synthesis and the preparation of combinatorial libraries.

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS 3 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 15 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN L6

2001:426038 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 135:227220

Introduction of the new dipeptide isostere 7-endo-BtA TITLE:

as reverse turn inducer in a Bowman-Birk proteinase

inhibitor synthesis and conformational analysis AUTHOR (S):

Scarpi, D.; Occhiato, E. G.; Trabocchi, A.;

Leatherbarrow, R. J.; Brauer, A. B. E.; Nievo, M.;

Guarna, A.

Department of Chemistry, Imperial College of Science CORPORATE SOURCE:

Technology and Medicine, South Kensington, London, SW7

2AY, UK

Bioorganic & Medicinal Chemistry (2001), 9(6), SOURCE:

1625-1632

CODEN: BMECEP; ISSN: 0968-0896

Elsevier Science Ltd. PUBLISHER:

Journal DOCUMENT TYPE: English LANGUAGE:

OTHER SOURCE(S): CASREACT 135:227220

GI

Two dipeptide isosteres 7-exo-BTG, I, and 7-endo-BtA, II, were inserted AB into an 11-residue peptide, H-Ser-cyclo(Cys-Thr-Phe-Ser-Ile-Pro-Pro-Gln-Cys)-Tyr-OH, derived from the Bowman Birk Inhibitor (BBI) class of serine protease inhibitors, and the conformational properties of these modified peptides were studied by NMR and mol. modeling. II, obtained from L-alanine and meso tartaric acid, gave rise to the modified BBI peptide, H-Ser-cyclo(Cys-Thr-Phe-Ser-(7-endo-BtA)-Pro-Gln-Cys)-Tyr-OH, whose structure was very similar to that of the original peptide, suggesting a possible reverse turn inducing property for this dipeptide isostere.

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS 17 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L6 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:836451 CAPLUS

DOCUMENT NUMBER: 134:178261

TITLE: Stereoselective Meisenheimer rearrangement using

BTAa's as chiral auxiliaries

AUTHOR(S): Guarna, A.; Occhiato, E. G.; Pizzetti, M.; Scarpi, D.;

Sisi, S.; van Sterkenburg, M.

CORPORATE SOURCE: Dipartimento di Chimica Organica 'U. Schiff' and

Centro di Studio sulla Chimica e la Struttura dei Composti Eterociclici e loro Applicazioni, CNR, Universita di Firenze, Florence, I-50121, Italy Tetrahedron: Asymmetry (2000), 11(20), 4227-4238

SOURCE: Tetrahedron: Asymmetry (2000), 11(20), CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:178261

AB The Meisenheimer rearrangement involves the [2,3]-sigmatropic rearrangement of allylic tertiary amine-N-oxides to O-allyl

hydroxylamines. Various BTAa's (bicycles derived from tartaric acid and α -amino acids) were employed as chiral auxiliaries in the

Meisenheimer rearrangement of the N-oxides of N-allylamines obtained by the coupling of BTAa's with cinnamyl bromide and (E)-2-methyl-2-pentenyl acetate. While the formation of the N-oxides was highly

diastereoselective, the asym. induction in the rearrangement was generally low. However, the interaction between the 4-endo group on the BTAa and a 2'-substituent on the allylic moiety allowed a more efficient chirality transfer in the [2,3]-sigmatropic process, affording d.e. values as high as 65% in the best case. The cleavage of the N-O bond in the

rearrangement products was possible by using Mo(CO)6 with a good recovery of both alc. and chiral auxiliary.

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2000:792847 CAPLUS

17

DOCUMENT NUMBER: 2000:75204

REFERENCE COUNT:

TITLE: Oligomers of enantiopure bicyclic γ/δ -

amino acids (BTAa). 1. Synthesis and conformational analysis of 3-aza-6,8-dioxabicyclo[3.2.1]octane-7-

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS

carboxylic acid oligomers (PolyBTG)

AUTHOR(S): Machetti, Fabrizio; Ferrali, Alessandro; Menchi,

Gloria; Occhiato, Ernesto G.; Guarna, Antonio

CORPORATE SOURCE: Dipartimento di Chimica Organica U. Schiff and Centro

di Studio sulla Chimica e la Struttura dei Composti Eterociclici e loro Applicazioni C.N.R., Universita di

Firenze, Florence, I-50121, Italy

SOURCE: Organic Letters (2000), 2(25), 3987-3990

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:101172

AB A series of dimeric through pentameric oligomers of a bicyclic γ/δ -amino acid (BTG) were synthesized using peptide coupling methods in solution with PyBroP (bromo-tris-pyrrolidino-phosphonium hexafluorophosphate) or HATU [O-(7-azabenzotriazol-1-yl)-1,1,3,3-tetramethyluroniumhexafluorophosphate]. The anal. of 1H NMR and CD

structure in alc. solns.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

spectra suggests that these oligomers could have a partially ordered

ACCESSION NUMBER: 2000:442927 CAPLUS

DOCUMENT NUMBER: 134:193695

TITLE: Synthesis and reactivity of bicycles derived from

tartaric acid and α -amino acids: a novel class of conformationally constrained dipeptide isosteres

based upon enantiopure 3-aza-6,8-

dioxabicyclo[3.2.1]octane-7-carboxylic acid. [Erratum

to document cited in CA131:337331]

AUTHOR(S): Guarna, Antonio; Guidi, Antonio; Machetti, Fabrizio;

Menchi, Gloria; Occhiato, Ernesto G.; Scarpi, Dina;

Sisi, Sauro; Trabocch, Andrea

CORPORATE SOURCE: Department of Organic Chemistry U. Schiff and Center

of Heterocyclic Compounds, University of Florence,

Florence, I-50121, Italy

SOURCE: Journal of Organic Chemistry (2000), 65(15), 4782

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB On page 7358, 1H NMR data for compound 60 should read: δ 9.32 (s, 1

H), 7.40-7.00 (m, 10 H), 5.34 (d, J = 5.8 Hz, 1 H), 4.95 (d, J = 5.8 Hz, 1 H), 4.90 (d, J = 15.4 Hz, 1 H), 3.86 (s, 3 H), 3.51 (dd, J = 8.3, 4.4 Hz, 1 H), 3.36 (dd, J = 13.9, 4.4 Hz, 1 H), 3.19 (d, J = 15.4 Hz, 1 H), 3.16

(dd, J = 13.9, 8.3 Hz, 1 H), 1.49 (s, 3 H), 1.43 (s, 3 H)."

L6 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:580083 CAPLUS

DOCUMENT NUMBER: 131:337331

TITLE: Synthesis and Reactivity of Bicycles Derived from

Tartaric Acid and α -Amino Acids: A Novel Class of Conformationally Constrained Dipeptide Isosteres

Based upon Enantiopure 3-Aza-6,8-

dioxabicyclo[3.2.1]octane-7-carboxylic Acid

AUTHOR(S): Guarna, Antonio; Guidi, Antonio; Machetti, Fabrizio;

Menchi, Gloria; Occhiato, Ernesto G.; Scarpi, Dina;

Sisi, Sauro; Trabocchi, Andrea

CORPORATE SOURCE: Department of Organic Chemistry U. Schiff and Center

of Heterocyclic Compounds C.N.R., University of

Florence, Florence, I-50121, Italy

SOURCE: Journal of Organic Chemistry (1999), 64(20), 7347-7364

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 131:337331

3-Aza-6,8-dioxabicyclo[3.2.1]octane-7-carboxylic acids (named BTAa) derived from (R,R)-, (S,S)-, or meso-tartaric acid and natural (L), unnatural (D), or unusual α -amino acids are described as conformationally constrained dipeptide isosteres. The general strategy developed for their preparation has required the transformation of the amino acids into the corresponding N-benzyl-amino alcs., followed by the PyBroP-promoted condensation with the monomethyl ester of the suitable 2,3-di-O-isopropylidene-tartaric acid. Oxidation of the hydroxy group to aldehyde and subsequent acid-catalyzed trans-acetalization with the two hydroxy groups of the tartaric acid moiety provided 3-aza-2-oxo-6,8dioxabicyclo[3.2.1]octane-7-carboxylic acid Me esters [named BTAa(0)] in good yield and, in most cases, as single enantiopure diastereoisomers. This strategy has been applied to the preparation of BTAa(O) starting from (R,R)-, (S,S)-, or meso-tartaric acid and glycine, L- and D-phenylalanine, L- and D-alanine, and (±)-phenylglycine. In the cases of glycine, Land D-phenylalanine, and L- and D-alanine, the selective reduction by BH3.DMS of the amide group succeeding to the cyclization step, or the reduction of both amide and ester functions followed by reoxidn. of the

hydroxy to carboxylic group, provided in good yield the

3-aza-3-benzyl-6,8-dioxabicyclo[3.2.1]octane-7-carboxylic acids (or their Me ester) BTAa, having the side chain of the amino acid precursors at position 4. The stability and rigidity of the bicyclic skeleton, the complete control of all the stereo-centers, the possibility of introducing the side chains of L- or D-amino acids, and the demonstrated compatibility with the conditions required for solid-phase peptide synthesis make the BTAa compds. potential dipeptide isosteres useful for the synthesis of modified peptides.

REFERENCE COUNT:

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:482695 CAPLUS

DOCUMENT NUMBER: 129:245379

TITLE: Carbaxylosides of 4-ethyl-2-oxo-2H-benzopyran-7-yl as

nonhydrolyzable, orally active venous antithrombotic

agents

AUTHOR(S): Jeanneret, Vincent; Vogel, Pierre; Renaut, Patrice;

Millet, Jean; Theveniaux, Jocelyne; Barberousse,

Veronique

CORPORATE SOURCE: Institut de Chimie Organique de l'Universite de

Lausanne, BCH, Lausanne-Dorigny, CH-1015, Switz.

SOURCE: Bioorganic & Medicinal Chemistry Letters (1998),

Ι

II

8(13), 1687-1688

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

AB A (-)-conduritol F derivative (I; R = H, R1 = SiMe2CMe3) was condensed with 4-ethyl-7-hydroxy-2H-1-benzopyran-2-one and converted into (+)-4-ethyl-7-[(1'R,2'S,3'S,4'R)-2',3',4'-trihydroxycyclohexyloxy]-2H-1-benzopyran-2-one [(+)-I; R = Q, R1 = H]. Enantiomer (-)-II was obtained from a (+)-conduritol F derivative The carba-L-xyloside (-)-II with the L-xylose configuration was more active than carba-D-xyloside (+)-I (R = Q, R1 = H) in rat for antithrombotic activity in the modified Wessler's model.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS

L6 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:687564 CAPLUS

DOCUMENT NUMBER: 128:13232

TITLE: Condensation product between (R,R)-tartaric acid and a

L-phenylalanine derivative as a new molecular scaffold

AUTHOR(S): Guidi, Antonio; Guarna, Antonio; Giolitti, Alessandro;

Macherelli, Michele; Menchi, Gloria

CORPORATE SOURCE: Dipartimento Ricerca Chimica, Menarini Ricerche

S.p.A., Florence, I-50131, Italy

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1997),

330(7), 201-202

CODEN: ARPMAS; ISSN: 0365-6233

PUBLISHER: Wiley-VCH
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 128:13232

GT

AB Condensation of N-(methoxybenzyl)phenylalaninol with isopropylideneprotected (R,R)-tartaric acid monomethyl ester gave after Swern oxidation and cyclization of the resulting aldehyde the azadioxabicyclo[3.2.1]octane I which was studied by conformational anal.

L6 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

Ι

ACCESSION NUMBER: 1996:560577 CAPLUS

DOCUMENT NUMBER: 125:275475

TITLE: Asymmetric Synthesis and DNA Intercalation of

(-) -6-[[(Aminoalkyl)oxy]methyl]-4-demethoxy-6,7-

dideoxydaunomycinones

AUTHOR(S): Dienes, Zoltan; Vogel, Pierre

CORPORATE SOURCE: Section de Chimie de l'Universite, BCH,

Lausanne-Dorigny, 1015, Switz.

SOURCE: Journal of Organic Chemistry (1996), 61(20), 6958-6970

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB The BF3·Et20-promoted Diels-Alder addition of 1-acetylvinyl

RADO(Et)-ate [RADO(Et)-ate = 3-ethyl-2-oxo-6,8-dioxa-3-

azabicyclo[3.2.1]octane-7-exo-carboxylate] to 1-(dimethoxymethyl)-2,3,5,6-tetramethylidene-7-oxabicyclo[2.2.1]heptane led to one major monoadduct

that added to 1,2-didehydrobenzene and was converted into

(-)-4-demethoxy-7-deoxydaunomycinone and (2R)-12-acetoxy-2-acetyl-5-(bromomethyl)-1,2,3,4-tetrahydronaphthacen-2-yl RADO(Et)-ate. The latter

compound was used to construct (8R)-8-acetyl-6,8-dihydroxy-11-(ω -

aminoalkoxy) methyl-7,8,9,10-tetrahydronaphthacene-5,12-dione hydrochloride

(I, alkyl = Pr, Bu, pentyl) as well as (8R)-8-acetyl-6,8-dihydroxy-11-

(3-aminopropylaminoalkoxymethyl)-7,8,9,10-tetrahydronaphthacene-5,12-dione

hydrochloride (II, alkyl = Et, Pr). (8R)-8-Acetyl-6,8-dihydroxy-11-[[(α -L-daunosaminyl)oxy]methyl]-7,8,9,10-tetrahydronaphthacene-5,12-dione hydrochloride (III), a mimic of idarubicin, was also prepared Absorbance and fluorescence titration expts. showed I to intercalate calf thymus DNA whereas II and III did not. The best intercalator was I with the 4-aminobutoxymethyl chain (Kb = (1.1 \pm 0.1) + 105 M-1). Inhibition of topoisomerase II-induced DNA strand religation was observed for I (alkyl = propyl) at a concentration of 50 μ M.

L6 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:637715 CAPLUS

DOCUMENT NUMBER: 123:285463

TITLE: Remote substituent effect on the electrophilic

additions of 1,3-dienes. Synthesis of

(2R) -5- (acetoxymethyl) -2-acetyl-1, 2, 3, 4-tetrahydro-10-

methoxynaphthacene-2,12-diyl diacetate

AUTHOR(S): Mosimann, Herve; Dienes, Zoltan; Vogel, Pierre

CORPORATE SOURCE: Section chemie, Univ. Lausanne, Lausanne, 1015, Switz.

SOURCE: Tetrahedron (1995), 51(23), 6495-510

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Pergamon DOCUMENT TYPE: Journal

LANGUAGE: Journal English

GI

AB The addition of one equivalent of 2-nitrobenzenesulfenyl chloride to 1-(dimethoxymethyl)-2,3,4,6-tetramethylidene-7-oxabicyclo[2.2.1]heptane (I) is highly regioselective giving 2-(chloromethyl)-1-(dimethoxymethyl)-5,6-dimethylidene-3-[(2-nitrophenylthio)methyl]-7-oxabicyclo[2.2.1]hept-2-The reaction of 2-nitrobenzenesulfenyl chloride with 8-(dimethoxymethyl)-9,10-dimethylidene-11-oxatricyclo[6.2.1.02,7]undec-2(7)-en-4-yl Me ketone derivs., e.g. II, was also regioselective giving mixts. of 1,2- rather than 1,4-adducts resulting from competitive Markovnikov and anti-Markovnikov modes of addition, the olefinic moiety the furthest from the 8-dimethoxymethyl substituent being preferred. adducts underwent base-induced eliminations with the formation of exocyclic thio- and chlorosubstituted dienes that added to 2,3-didehydroanisole to give products resulting from highly "ortho" regioselective Diels-Alder addns. The regioselectivity was the same whether 2,3-didehydroanisole was generated by nitrosation of 3-methoxy- or 6-methoxy-2-aminobenzoic acid. By applying these regioselective reactions to the Diels-Alder monoadduct of I enantiopure (2R)-2-acetyl-1,2,3,4tetrahydro-10-methoxynaphthacene-2,5-diyl diacetate and (2R) -5-(acetoxymethyl)-2-acetyl-1,2,3,4-tetrahydro-10-methoxynaphthacene-2,12-diyl diacetate were prepared

L6 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:470997 CAPLUS

DOCUMENT NUMBER: 122:314339

TITLE: Synthesis of (-)-6-(3'-aminopropyloxy)methyl-4-

dimethoxy-6,7-dideoxy-daunomycinone, a new DNA

intercalator related to anthracyclines

AUTHOR (S): Dienes, Zoltan; Vogel, Pierre

CORPORATE SOURCE: Sect. Chim. Univ. Lausanne, Lausanne, CH-1015, Switz. SOURCE:

Bioorganic & Medicinal Chemistry Letters (1995), 5(6),

547-50

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:314339

The hydrochloride of (-)-(8R)-8-acetyl-7,8,9,10-tetrahydro-6,8-dihydroxy-AR 11-[(3'-aminopropyloxy)methyl]naphthacene-5,12-dione was derived from 1-(dimethoxymethyl)-2,3,5,6-tetramethylidene-7-oxabicyclo[2.2.2.]heptane and shown to be a moderate intercalator of calf thymus DNA type XV.

ANSWER 25 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN L6

ACCESSION NUMBER: 1993:254509 CAPLUS

DOCUMENT NUMBER: 118:254509

TITLE: Enantioselective synthesis of (R)-(-)-2-acetyl-2,5,12-

> trihydro-1, 2, 3, 4-tetrahydro-6, 11-naphthacenequinone via diastereoselective Diels-Alder cycloaddition

AUTHOR(S): Dienes, Zoltan; Antonsson, Thomas; Vogel, Pierre

CORPORATE SOURCE: Sect. Chim., Univ. Lausanne, Lausanne, CH 1005, Switz.

SOURCE: Tetrahedron Letters (1993), 34(6), 1013-16

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 118:254509

GI

AB The BF3.Et20-promoted Diels-Alder addition of 1-acetylvinyl (1'R,5'S,7'R)-3'-ethyl-2'-oxo-3'-aza-6',8'-dioxabicyclo[3.2.1]octane-7'carboxylate (I) to 1-(dimethoxymethyl)-2,3,5,6-tetramethylidene-7oxabicyclo[2.2.1]heptane (II) was highly regio-, stereo and diastereoselective giving monoadduct that was converted into (R) - (-) - 4-demethoxy-7-deoxydaunomycinone (III).

ANSWER 26 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:408441 CAPLUS

DOCUMENT NUMBER: 115:8441

TITLE: New chiral auxiliaries and new optically pure ketene

equivalents derived from tartaric acids. Improved synthesis of (-)-7-oxabicyclo[2.2.1]hept-5-en-2-one

AUTHOR (S): Reymond, Jean Louis; Vogel, Pierre

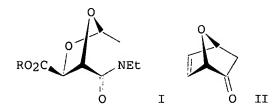
CORPORATE SOURCE: Sec. Chim., Univ. Lausanne, Lausanne, CH-1005, Switz. SOURCE: Tetrahedron: Asymmetry (1990), 1(10), 729-36

CODEN: TASYE3; ISSN: 0957-4166

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 115:8441

GI



AB Condensation of di-O-acetyl-(R,R)- and (S,S)-tartaric anhydride with acetals of N-alkylaminoacetaldehyde gave new chiral auxiliaries (1R,5S,7R)- and (1S,5R,7S)-3-alkyl-2-oxo-3-aza-6,8-dioxabicyclo[3.2.1]octane-7-carboxylates, e.g. I (R = Me). These were converted to 1-cyanovinyl esters I [R = C(CN):CH2] that add to furan to give readily crystallizable, optically pure Diels-Alder adducts.

L6 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:82223 CAPLUS

DOCUMENT NUMBER: 114:82223

TITLE: Application of new optically pure ketene equivalents

derived from tartaric acids to the total, asymmetric

syntheses of (+)-6-deoxycastanospermine and

(+)-6-deoxy-6-fluorocastanospermine

AUTHOR(S): Reymond, Jean Louis; Vogel, Pierre

CORPORATE SOURCE: Sect. Chim., Univ. Lausanne, Lausanne, CH-1005, Switz.

SOURCE: Journal of the Chemical Society, Chemical

Communications (1990), (16), 1070-2

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:82223

GI

AB

NC
$$O_2$$
C O_2

of N-ethylaminoacetaldehyde gave (1S,5S,7S)-3-ethyl-2-oxo-6,8-dioxa-3-azabicyclo[3.2.1]octane-7-carboxylic acid whose 1-cyanovinyl ester I added to furan to give, after two recrystns., an optically pure 7-oxabicyclo[2.2.1]hept-5-en-2-yl derivative II that was converted into (+)-6-deoxycastanospermine (III) and (+)-6-deoxy-6-fluorocastanopermine.

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(FILE 'HOME' ENTERED AT 10:49:37 ON 05 JUL 2006)

	FILE	'REGISTRY' ENTERED AT 10:49:42 ON 05 JUL 2006
L1		STRUCTURE UPLOADED
L2		48 S L1
L3		STRUCTURE UPLOADED
L4		35 S L3
L5		776 S L3 FULL

FILE 'CAPLUS' ENTERED AT 11:01:22 ON 05 JUL 2006 L6 27 S L5